**SITE RESPONSIBILITY SCHEDULE**

 (Pursuant to Section *26* of the State Grid Code)

*This Site Responsibility Schedule is integral part of Connection Agreement executed between M/s\_\_\_\_\_\_\_\_\_\_\_\_\_and MSETCL for connection of \_\_\_MW\_\_\_\_\_\_\_\_\_\_\_Power Project proposed at Site: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ at \_\_\_kV level of \_\_\_\_\_\_\_kV Substation or making LILO on \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_*

# Introduction

This document describes the format, principles and procedure for preparation of SRS for the works to be carried out for new connections to and/or use of the Intra-State Transmission System.

Part C: Connection Code**,** of the State Grid Code relates to Connection Conditions for connectivity with Intra State Transmission System and lays down detailed procedure for establishing connection to and/or use of Intra-State Transmission System.

Site Responsibility Schedule (SRS) for work relating to each connection describes the responsibilities of each party for ownership, control, operation, maintenance, and safety of any person at Connection Site. Transmission Licensees and the Users shall be responsible for safety as indicated in the SRS for each connection point.

# Access at Connection Site

 The parties owning the Connection Site shall provide reasonable access and other required facilities to another Transmission Licensee or MSETCL whose equipment is installed or proposed to be installed at the Connection Site for installation, operation, maintenance, etc.

# Annexure-A1 : General Format of Site Responsibility Schedule

|  |  |
| --- | --- |
| Name of Transmission Licensee |  |
| Name & Designation of co-ordinating officer of Transmission Licensee |  |
| Contact AddressTelephoneMobileE-mail Id |  |
| Name of Substation where inter- connection with InSTS is proposed  |  |
| Voltage of Connection with intra –State Transmission System |  |
| Name of Long Term Transmission System User seeking connection with InSTS. |  |
| Name & Designation of co-ordinating officer of User (Site Manager) |  |
| Contact AddressTelephoneMobileE-mail Id |  |

**Annexure-A2 :** **Activity Responsibility:**

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| **Item of Plant/Apparatus** | **Plant Owner** | **Safety Responsibility** | **Control Responsibility** | **Operation Responsibility** | **Maintenance Responsibility** | **Remark** |
| Details of all equipment and Metering System at connection site |  |
| \_\_\_kV Switchyard |  |  |  |  |  |  |
| All equipment including Busbar |  |  |  |  |  |  |
| Feeders |  |  |  |  |  |  |
| Generating Units |  |  |  |  |  |  |
| Name, designation and Contact details (Telephone/Mobile/E-mail) of authorized officer responsible for activity on behalf of Transmission Licensee |  |  |  |  |  |  |
| Signature |  |  |  |  |  |  |
| Name, designation and Contact details (Telephone/Mobile/E-mail) of authorized officer responsible for activity on behalf of user |  |  |  |  |  |  |
| Signature |  |  |  |  |  |  |

Date:

**DETAILS OF ALL** **SLDs & PROFORMA FOR SRS**

1. **Annexure B1 :** Approved copy of SLD detailing all equipments at the connection point.

(Note: In the event of a proposal to change any equipment, the concerned parties shall intimate the necessary changes required to State Transmission Utility and all other Users / MSETCL. Single Line Diagram shall be updated appropriately by the concerned parties and a copy of the same shall be provided to the State Load Despatch Centre.)

1. **Annexure B2 :** Approved copy of Site Layout;
2. **Annexure B3:** Electrical Layout; (Electrical plan & Electrical Section drawing)
3. **Annexure B4 :** Common Services Drawings
4. **Annexure B5:** Approved copy of metering arrangement scheme and synchronization scheme.

**Annexure: C-1**

**DETAILS OF ALL EQUIPMENT AND METERING SYSTEM FOR BAYS CONNECTING –**

**Energy Meters:**

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **Sr. No.** | **Name of feeder where** | **Type of Meter** | **Make and Model** | **Class of Meter** | **Sr. No. of Meter** |
| 1 |  |  |  |  |  |
| 2 |  |  |  |  |
| 3 |  |  |  |  |  |
| 4 |  |  |  |  |

**Type of Meter**

1. **Panel Meter (Import / Export)**
2. **ABT Main and Check Meter with AMR Facility**
3. **Billing Energy Meters**
4. **Express Feeder Separated Energy Meter.**

**Executive Engineer (Trans. O&M)**

**Annexure C-2**

**DETAILS OF ALL EQUIPMENT AND METERING SYSTEM FOR BAYS CONNECTING –**

**Capacitive Voltage Transformers (CVT)/Inductive Voltage Transformer (IVT) (Metering):**

|  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **Sr. No.** | **Name of Feeder where installed** | **Main or Check CVT/IVT if applicable**  | **Make** | **Voltage Ratio** | **Class** | **No. of Cores** | **Burden in VA** | **Insulation Level** | **Type** | **Sr. No.** | **Lab. Testing No.** |
| 1 |  |  |  |  |  |  |  |  |  |  |  |
| 2 |  |  |  |  |  |  |  |  |  |  |
| 3 |  |  |  |  |  |  |  |  |  |  |
| 4 |  |  |  |  |  |  |  |  |  |  |  |
| 5 |  |  |  |  |  |  |  |  |  |  |
| 6 |  |  |  |  |  |  |  |  |  |  |

**Type: CVT / IVT & Model No.**

**Executive Engineer (Trans. O&M)**

**Annexure C -3**

**DETAILS OF ALL EQUIPMENT AND METERING SYSTEM FOR BAYS CONNECTING -**

**Capacitive Voltage Transformers (CVT)/Inductive Voltage Transformer (IVT) (Protection):**

|  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **Sr. No.** | **Name of Feeder where installed** | **Make** | **Voltage Ratio** | **Class** | **No. of Cores** | **Burden in VA** | **Insulation Level** | **Type** | **Sr. No.** | **Lab. Testing No.** |
| **1** |  |  |  |  |  |  |  |  |  |  |
| **2** |  |  |  |  |  |  |  |  |  |
| **3** |  |  |  |  |  |  |  |  |  |
| **4** |  |  |  |  |  |  |  |  |  |  |
| **5** |  |  |  |  |  |  |  |  |  |
| **6** |  |  |  |  |  |  |  |  |  |

**Type: CVT / IVT & Model No.**

**Executive Engineer (Trans. O&M)**

**Annexure C-4**

**DETAILS OF ALL EQUIPMENT AND METERING SYSTEM FOR BAYS CONNECTING -**

**Current Transformers (Metering):**

|  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **Sr. No.** | **Name of Feeder where installed** | **Main or Check CT if applicable** | **Make** | **Voltage** | **Ratio** | **No. of Cores** | **Class** | **Burden in VA** | **Sr. No.** | **Lab. Testing No.** |
| **1** |  |  |  |  |  |  |  |  |  |  |
| **2** |  |  |  |  |  |  |  |  |  |
| **3** |  |  |  |  |  |  |  |  |  |
| **4** |  |  |  |  |  |  |  |  |  |  |
| **5** |  |  |  |  |  |  |  |  |  |
| **6** |  |  |  |  |  |  |  |  |  |

**Type: CT & Model No.**

**Executive Engineer (Trans. O&M)**

**Annexure C-5**

**DETAILS OF ALL EQUIPMENT AND METERING SYSTEM FOR BAYS CONNECTING -**

**Current Transformers (Protection) :**

| **Sr. No.** | **Name of Feeder where installed** | **Make** | **Voltage** | **Ratio** | **No. of Cores** | **Class** | **Burden in VA** | **Sr. No.** | **Lab. Testing No.** |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| 1 |  |  |  |  |  |  |  |  |  |
| 2 |  |  |  |  |  |  |  |  |
| 3 |  |  |  |  |  |  |  |  |
| 4 |  |  |  |  |  |  |  |  |  |
| 5 |  |  |  |  |  |  |  |  |  |
| 6 |  |  |  |  |  |  |  |  |  |
| 7 |  |  |  |  |  |  |  |  |  |

**Type: CT & Model No.**

**Executive Engineer (Trans. O&M)**

**Annexure C-6**

**DETAILS OF ALL EQUIPMENT AND METERING SYSTEM FOR BAYS CONNECTING -**

**Circuit Breakers:**

(Kindly mention the type of s/s bus arrangement: single bus; single bus+ Aux. bus; Two bus; Two bus+ Aux. bus or 11/2 breaker scheme)

|  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **Sr.No.** | **Name of Line / TF** | **Make** | **Type** | **Mechanism type** | **Model** | **Breaker****No.** | **Normal Current in AMP** | **Capacity in KV** | **Rupturing****Current** | **DC****Voltage** | **Working****Pressure** |
|  |  |  |  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  |

 **Breaker Type: …………………..**

**Executive Engineer (Trans. O&M)**

**Annexure C-7**

**DETAILS OF ALL EQUIPMENT AND METERING SYSTEM FOR BAYS CONNECTING -**

**Isolators:**

|  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **Sr. No.** | **Name of Line / TF****Where Provided** | **Make** | **Voltage** | **Capacity in AMP** | **Type** | **Sr. No** | **With ES** | **Without ES** | **Motorized****(Yes/No)** |
| **Main** | **E/S** |
| 1 |  |  |  |  |  |  |  |  |  |  |
| 2 |  |  |  |  |  |  |  |  |  |  |
| 3 |  |  |  |  |  |  |  |  |  |  |
| 4 |  |  |  |  |  |  |  |  |  |
| 5 |  |  |  |  |  |  |  |  |  |

 **Type: Single break (SB), Double Break (DB), Centre Break (CB), Pantograph type etc.**

 **Executive Engineer (Trans. O&M)**

**Annexure C-8**

**DETAILS OF ALL EQUIPMENT AND METERING SYSTEM FOR BAYS CONNECTING -**

**Lightning Arresters:**

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| **Sr. No.** | **Name of Line / TF****Where Installed** | **Make** | **Type** | **LA rating** | **LA MCOV** | **Sr. No.** |
| **R-Ph** | **Y-Ph** | **B-Ph** |
| 1 |  |  |  |  |  |  |  |  |
| 2 |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |

 **Executive Engineer (Trans. O&M)**

**Annexure C-9**

**DETAILS OF ALL EQUIPMENT AND METERING SYSTEM FOR BAYS CONNECTING -**

1. **In case of PLCC:**
2. **Details of coupling Capacitor (C.C.)**

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| **Sr. No.** | **Name of Line /TF where installed** | **Make** | **Type** | **Voltage** | **Burden / Value** | **Sr. No. C.C** | **Phase** |
| 1 |  |  |  |  |  |  |  |
| 2 |  |  |  |  |  |  |  |

1. **Details of Wave Trap (W.T)**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **Sr. No.** | **Name of Line / TF Where installed** | **Make** | **Capacity / Value** | **Sr. No. of W.T.** |
| 1 |  |  |  |  |  |  |
| 2 |  |  |  |  |  |  |

1. **Line matching Unit (LMU)**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **Sr. No.** | **Name of Line Where installed** | **Make** | **Manufacturing date** | **Additional information if any** |
| 1 |  |  |  |  |
| 2 |  |  |  |  |

1. **Protection Coupler panel**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **Sr. No.** | **Name of Line Where installed** | **Make** | **Manufacturing date** | **Additional information if any** |
| 1 |  |  |  |  |
| 2 |  |  |  |  |

1. **In case of OPGW/ADSS/FO Cable communication:**
2. **FOTE Panel**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **Sr. No.** | **Name of Line Where installed** | **Make** | **Manufacturing date** | **Additional information if any** |
| 1 |  |  |  |  |
| 2 |  |  |  |  |

1. **OPGW/FO/ADSS cores**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **Sr. No.** | **No. of fibre optic cores** | **Make** | **Manufacturing date** | **Utilized/Unutilized cores** |
| 1 |  |  |  |  |
| 2 |  |  |  |  |

 **Executive Engineer (Trans. O&M)**

**Annexure C-10**

**DETAILS OF ALL EQUIPMENT AND METERING SYSTEM FOR BAYS CONNECTING -**

**Control & Relay (C&R) Panel:**

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| **Sr. No.** | **Name of Line / TF Where installed** | **Make** | **Sr. No. of Panel** | **Diff. Protn.****Make/Type/Sr. No.** | **Dist. Protn.****Make/Type/Sr. No.** | **Back up Protn.****Make/Type/Sr. No.** |
| 1 |  |  |  |  |  |  |
| 2 |  |  |  |  |  |  |
|  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |

**Executive Engineer (Trans. O&M)**

**Annexure C-11**

**DETAILS OF ALL EQUIPMENT AND METERING SYSTEM FOR BAYS CONNECTING -**

**Reactive Compensation if any:** Reactors/Capacitors

Capacitors

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| **Sr. No.** | **Capacity in KVAR** | **Make** | **Working Voltage** |  |  |  |
| 1 |  |  |  |  |  |  |
| 2 |  |  |  |  |  |  |
|  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |

Reactor

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| **Sr. No.** | **Capacity in KVAR** | **Make** | **Working Voltage** |  |  |  |
| 1 |  |  |  |  |  |  |
| 2 |  |  |  |  |  |  |
|  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |

**Executive Engineer (Trans. O&M)**

**Annexure C-12**

**DETAILS OF ALL EQUIPMENT AND METERING SYSTEM FOR BAYS CONNECTING -**

**Earthing details:**

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| **Sr. No.** | **Soil Resistivity**  | **No. of pits** | **Step/touch potential** | **Measured earth/Ground resistance** | **Date of measurement** | **Earthing approval No. & date (EI)** | **Remark** |
| 1 |  |  |  |  |  |  |  |
| 2 |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |

**Executive Engineer (Trans. O&M)**

**Annexure C-13**

**DETAILS OF ALL EQUIPMENT AND METERING SYSTEM FOR BAYS CONNECTING -**

**ICT/Transformer details:**

|  |  |
| --- | --- |
| **Description** | **Remarks** |
| **Bay Name** |  |
| **ICT/Trans.** |  |
| **Make** |  |
| **Ratio HV/IV/LV** |  |
| **Capacity in MVA** |  |
| **HV full load current (A)** |  |
| **IV full load current (A)** |  |
| **LV full load current (A)** |  |
| **% Impedance** |  |
| **No. of winding (2/3 winding)** |  |
| **Neutral earthing (solid/others)** |  |
| **OLTC details** |  |
| **Short circuit level** |  |
| **Bushing type (OIP/RIS/RIP/ Porcelain** |  |
| **NO load loss/Load loss** |  |

**Executive Engineer (Trans. O&M)**

**Annexure C-14**

**DETAILS OF ALL EQUIPMENT AND METERING SYSTEM FOR BAYS CONNECTING -**

**Bus details:**

|  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **Sr. No.** | **Voltage level**  | **Bus config. (Main1/Main2/Aux/etc)** | **Type (AIS/GIS)** | **IPS tube/conductors used in AIS**  | **In case of conductor, singles/twin/quad etc.** | **Type of conductor** | **Bus total current capacity** | **Bus short ckt level & duration** |
| 1 |  |  |  |  |  |  |  |  |
| 2 |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |

**Executive Engineer (Trans. O&M)**